*COMP Summer 2016 – Middle Grades Wednesday, June 22, 9:45 – 11:30*

*Materials: Graphing Motion handout, TI 83/84 Ranger – Distance-Time Match handout, CBRs, post-its, measuring tapes*

*\*Set up CBR demonstration at the document camera.*

*\*During the morning break or while working on the first graphing task, transfer CBR/CBL app to calculators.*

We all teach students about graphs and functions, but we would probably all admit that much of what we teach them is without context. Do graphs really mean anything or are they just an algebraic tool? Today and tomorrow, we will look at real variables and use graphs to tell their story.

* Give teachers the *Graphing Motion* handout. Ask them to complete one at time, first working individually and then discussing with a partner.
* Ask selected teachers/partners to share their graphs and explain their reasoning. Discuss important features of the graphs and any variations that others have.
* Show teachers the CBR and briefly explain how to use it. Give teachers the TI 83/84 Ranger – Distance-Time Match handout.
* Ask for a volunteer for demonstration. Give the class a few minutes to talk about their plan, and then they will give directions to the volunteer. Do this a couple of times.
* Teachers will work in groups of 2-3 with CBRs and the Distance-Time Match app. Encourage them to take notes from the demonstration and group work, and then summarize their observations and findings.
* Come back together as a group and discuss the teachers’ experiences, observations, and findings.

*If extra time …*

* Show a distance-time match graph on the document camera. Can we write an equation or equations for this graph? (To represent these graphs symbolically, it requires piecewise functions, or sets of equations, each of which is defined only for specified values of *t*.)